# ANDRES LADINO

## Research Engineer & Data Scientist


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## EXPERIENCE

### Postdoctoral researcher

**IFSTTAR - French institute of science and technology for transport**

Jan 2018 – Ongoing Lyon, France

- I develop methods for control of connected vehicles and platoon strategies in complex traffic networks at LICIT (https://bit.ly/licitfr)
- Measure impact of platoons in traffic flow (ENSEMBLE WP4.5).
- I have participated in the Autonomous Vehicles workshop at IPAM (http://bit.ly/IPAM-AV)

### Research assistant

**CNRS / INRIA - National center for scientific research/ French Institute for Research in Computer Science and Automation**

August 2014 – October 2017 Grenoble, France

- I was SPEEDD project researcher (within Traffic Use Case) at the NeCS (http://bit.ly/necsfr).
- Visitor reesearcher at IPAM (http://bit.ly/Speech-IPAM)
- I have developed short-term forecasting algorithms for traffic networks. Real-time operation at (http://gtl.inrialpes.fr/status)

### Instructor Professor

**Pontifical Xaverian University - Universidad Javeriana**

January 2011 – August 2014 Bogota, Colombia

- I taught: Dynamic systems, Control theory, Control laboratory
- I was leader of the communication committee. Project ADDE SALEM

### Process Analyst

**IBM - International Business Machines**

Aug 2007 – Apr 2009 Bogota, Colombia

- Process Analyst: Business Process in IT Services / Strategic Outsourcing
- IT Manuals: Avianca (Airline), Belcorp (Beauty), Colseguros (Insurance)

## PROJECTS

### ENSEMBLE

**European Union/IFSTTAR**

3 years IFSTTAR, France

The main goal of the ENSEMBLE project is to pave the way for the adoption of multi-brand truck platooning in Europe to improve traffic safety, throughput and fuel economy. (http://bit.ly/EnsemblePlatoonEU)

### SPEEDD

**European Union/CNRS**

3 years CNRS, France

Development of real-time event recognition and forecasting technology operating on Big Data. (http://bit.ly/SpeeddEU)

## LIFE PHILOSOPHY

*"I would rather have questions that can't be answered than answers that can't be questioned."*

## MOST PROUD OF

**Being persistant in life**
Starting a new life in a new country

## STRENGTHS

Hard-working | Organized | Eye for detail | Motivator | Good listener

C++ | Python | R | git | Matlab | Traffic Flow Theory | Intelligent Transportation Systems | Automatic Control | Statistical Analysis & Learning

## LANGUAGES

**Spanish** ●●●●●

**English** ●●●●○

**French** ●●●●○

## EDUCATION

### Ph.D. in Automatic Control

**Université Grenoble Alpes**

Sept 2014 – Mar 2018

Thesis title: Estimation and prediction in large scale traffic networks

### M.E. in Electronics

**Pontifical Xavierian University**

Jul 2009 – Dec 2011

### B.E. in Electronics

**Pontifical Xavierian University**

Jan 2003 – Sep 2008

# PROJECTS

### ADDE SALEM

**European Union/Politecnico di Milano - Pontifical Xaverian University**

3 years | PUJ, Colombia

Adde Salem analysed to what extent engineering joint degrees' curricula reflected job market needs in the most developed countries of Latin America. (http://bit.ly/AddeSalem)

# CERTIFICATIONS & AWARDS

### Data Scientist with Python

**Data Camp**

April 2019 | http://www.datacamp.com

A series of online lectures & projects on how to combine statistical and machine learning techniques with Python programming to analyze and interpret complex data.. (http://bit.ly/DC_DSwPython)

### Honourable Mention

**Master Thesis**

April 2012 | PUJ, Colombia

*On predictive control of hybrid systems subject to variable time delays* This thesis analyzes control methods for discrete linear systems with variable time delays using predictive tools while studying their stability properties.

# PUBLICATIONS

## Journal Articles

- Duret, Aurelien, Meng Wang, and Andres Ladino (Apr. 2019). "A hierarchical approach for splitting truck platoons near network discontinuities". In: *Transportation Research Part B: Methodological*. ISSN: 01912615. DOI: 10.1016/j.trb.2019.04.006.
- Ladino, Andres, A. Y. Kibangou, et al. (2017). "A real time forecasting tool for dynamic travel time from clustered time series". In: *Transportation Research Part C: Emerging Technologies* 80, pp. 216–238. ISSN: 0968090X. DOI: 10.1016/j.trc.2017.05.002.

## Conference Proceedings

- Duret, Aurelien, Meng Wang, and Andres Ladino (in press 2019). "A Hierarchical Approach For Splitting Truck Platoons Near Network Discontinuities". In: *23rd International Symposium on Transportation and Traffic Theory, ISTTT*.
- Duret, A, A Ladino, and M Wang (2018). "Hierarchical multi-injection strategy and platoon manoeuvres at network junctions". In: *2nd Symposium on Management of Future Motorway and Urban Traffic Systems*. Ed. by EU. Vol. 2. Ispra, pp. 11–13.
- Ladino, Andres, Carlos Canudas-de-Wit, et al. (June 2018). "Density and flow reconstruction in urban traffic networks using heterogeneous data sources". In: *2018 European Control Conference (ECC)*. ed. by IEEE. Limasol, Chyprus: IEEE, pp. 1679–1684. ISBN: 978-3-9524-2698-2. DOI: 10.23919/ECC.2018.8550267.
- Ladino, Andres, Alain Kibangou, et al. (2017). "Travel time forecasting from clustered time series via optimal fusion strategy". In: *2016 European Control Conference, ECC 2016*, pp. 2234–2239. ISBN: 9781509025916. DOI: 10.1109/ECC.2016.7810623.

# REFEREES


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- Ladino, Andres and Diego Patino (2013). “On the stability of predictive controllers for linear systems with variable time delays”. In: *2013 American Control Conference (Acc)*, pp. 3254–3259. ISBN: 0743-1619; 978-1-4799-0178-4. DOI: 10.1109/ACC.2013.6580333.